

# Becoming World-Class in the Automotive Industry

Creating *World-Class* Manufacturers



System integrators and OEM component suppliers have to prove they can keep up with the OEM changes and expectations or others who can meet the automaker requirements will replace them. They are under competitive pressure to introduce more appealing, reliable and inexpensive products-and get them to market in record time. This takes a single, integrated platform for global operations that can satisfy ever-higher performance expectations in on-time delivery, flexible replenishment, cost reductions, and zero defects. And as organizations strive to improve collaboration with suppliers and customers, Internet communications become critical.

Today, automotive manufacturers envision a 5-day car or to-order business model, where actual demand is pulling replenishment out of the supply channel. A pull model enables OEMs to better respond to changing market conditions and opportunities, while reducing the high cost of inventory, marketing and lost sales. This concept has largely been a pipe dream, but the elements are slowly coming together to make it a reality. With its ability to fully integrate digital processes across the entire product lifecycle and supply chain, the MAPICS automotive solution eliminates one of the crucial remaining barriers-disjointed legacy systems. When automotive suppliers eliminate this obstacle, they can look forward to implementing more consistent lean manufacturing practices for continuous improvements in lead time, quality, waste and cost.

## MAPICS Offers a Valuable Perspective

MAPICS does more than just recognize the key business challenges of faster time-to-market, shorter lead times and lower costs that all automotive manufacturers face. After 25 years of alleviating manufacturing business pressures, MAPICS professionals and products deliver the proven automotive industry solutions that companies depend on to improve their time-to-market, slash operating costs and cut lead times on a global scale. Committed to the success of organizations worldwide, MAPICS facilitates best practice processes that drive business value throughout the automotive industry.



# Teaming Up for World-Class Performance



## Fueled by Information

*Trends in the automotive industry keep manufacturers on their toes. In the past, for example, suppliers manufactured individual parts for the OEMs; today, those same suppliers must provide much more complete subassemblies, requiring them to coordinate production with their individual parts suppliers.*

*This Tier .5 supplier trend, as well as more dependence by OEMs on automated sequencing, makes timing of production and deliveries absolutely crucial. Top performers produce products*

## Faster Time-to-Market

The automotive industry has automated and streamlined design and development operations. Yet the pressure to meet exacting specifications from OEMs has only increased, forcing integrators and suppliers to work together as co-designers and co-developers. Of utmost priority is staying on schedule, reusing designs and parts, using lowest cost materials, building in quality, and managing engineering revisions.

Delays cause the greatest problem in moving concepts into production. Delays getting design or part changes approved, engineers' feedback, access to critical resources, or in getting information from disparate legacy systems-all add up to major setbacks.

World-class automotive system integrators and suppliers are moving to complete product lifecycle management systems that digitally integrate all the design, development, supplier, production and customer data relevant to a vehicle model.

MAPICS is unique for its strength in integrating global design, development and production processes for attaining rapid concept-to-production deployment. Our automotive industry solution:

- Maintains both the engineering and manufacturing bill of materials, providing seamless data transfer for development, prototyping, testing and production.

- Includes fully integrated product data management, variant product structures, document management and engineering change control. These capabilities enable component and system rationalization and modularization. They also provide the ability to incorporate multiple types of changes at a time and to build multiple revisions of the same product in production at any time with different degrees of control.
- Offers a secure network Portal for Internet connectivity and exchange of designs and documents with suppliers and customers on a one-to-many or many-to-many configuration.
- Provides workflow-driven approval processes, product configuration visibility, and complete audit trail tracking and control further improve efficiencies and time-to-market.
- Integrates on a one-instance global architecture providing highly configurable multi-entity, multi-site standardized processes and localized requirements, consolidated and autonomous reporting, centralized and decentralized operations, procurement, financials and master data.

## Automotive Industry



Reduce  
Lead Time



Cut Operations  
Costs



Improve  
Visibility



Speed  
Time-to-Market

After implementing MAPICS automotive solution, PBR Automotive, a manufacturer of brake products with five facilities worldwide, reduced its IT staff by 70% and its inventory by 30%.

*under demanding specifications and schedules, while continuing to increase output through higher efficiencies and elimination of waste. They reduce product lead time and costs and are able to focus on their core competencies with the help of self-empowered teamwork, value-driven performance measurements and consolidation of operations. Lean manufacturing practices and integrated information systems are at the core of these cost-containing improvement efforts.*

*MAPICS understands the challenges faced by today's automotive manufacturers and has a refined suite of automotive industry solutions that will lead the way to world-class performance.*

## Reduced Lead Times for Rapid Replenishment Flexibility

Automotive OEMs demand on-time replenishment to assembly lines in small lots, in sequence and within specific timeframes. This requires considerable agility by suppliers for replenishment speed, flexibility, reliability, accuracy and compliance. All these factors rely on electronic communications and integrated back-end systems to automatically receive and transmit documents, respond to schedules and requests, and gain visibility to replenishment buffers and inventory levels.

Award-winning suppliers are doing all they can to be in sync with customers. They are applying lean manufacturing practices to streamline their plants and double throughput while reducing assets and waste. They are working closely with all of their customers to ensure products meet design specifications, are defect free, are shipped on-time and in sequence. They communicate electronically and comply fully with customer-specific EDI requirements, release schedule replenishment and accounting processes, and labeling formats. And they work with suppliers that in turn can help them meet throughput and cost objectives.

MAPICS has an automotive solution that supports lean manufacturing practices, outsourced operations, supply chain communications and customer compliance. Our automotive industry solution:

- Supports customer-specific EDI formats, customer and supplier release schedules, and release accounting; they are inherent and customizable and integrated to back-end demand planning, product configuration, production scheduling and accounting for centralized planning, sourcing and re-broadcasting schedules to suppliers.
- Integrates maintenance management with production planning and procurement to minimize equipment downtime, maintain highest calibration and manage tooling.
- Includes Kanban management and repetitive production planning and backflushing.
- Reports and tracks outsourced operations.
- Provides a secure Portal environment to exchange schedules and documents and gain visibility of replenishment consumption and inventory levels.

## Key Keys to Success



## Creating *World-Class* Manufacturers

# WORLD CLASS

### Reduced Costs

Many manufacturing costs are designed into a product up front. By using rationalization techniques, designers and engineers can re-use existing product designs, modular components, parts and suppliers. By working with customers to reduce product variations, manufacturers can standardize and modularize products. By adopting strategic sourcing practices, companies can procure higher quality and lower-cost materials. Additional cost-containing efficiencies within manufacturing processes exist, and the MAPICS automotive industry solution can help achieve them.

Legacy systems restrain system integrators and suppliers from standardizing processes across their extended operations or from taking full advantage of Internet-based sourcing, design collaboration and replenishment best practices. It's also difficult to centralize procurement spending, capacity planning or customer service with autonomous and incompatible systems. And it's impossible to create a common view, base of reference or set of metrics when departments and outsourced contractors are working off different and independent systems. All of these factors impact costs and the ability to identify, reduce or eliminate them.

While they have successfully reduced costs using continuous improvement programs, now they are looking at how technology can be deployed to generate additional savings. Many leading system integrators and suppliers are implementing a global system that standardizes and integrates operations, centralizes shared services, provides common data viewpoints, and supports Internet-based processes as the foundation for further cost restructuring.

The MAPICS automotive solution is a highly integrated, multi-entity solution that enables global product rationalization, product lifecycle costing, centralized

sourcing and planning, cross-operational visibility and collaboration, and synchronized supply chain replenishment. Our automotive industry solution:

- Employs a one-instance global architecture for highly configurable multi-entity, multi-site standardized processes and localized requirements, consolidated and autonomous reporting, centralized and decentralized operations, procurement, financials and master data.
- Provides centralized e-procurement to consolidate requisitions, evaluate bids, negotiate volume contracts and transmit purchase orders, acknowledgements, changes, and schedules.
- Reports and tracks outsourced operations.
- Offers a Portal for a secure Internet environment to exchange schedules and documents and gain visibility of replenishment consumption and inventory levels.
- Integrates performance monitoring, alerts and resolution drill down to identify discrepancies or unplanned events, rapidly respond, and track down the cause for continuous improvement.

Achieving and maintaining world-class status is an ongoing challenge. The MAPICS automotive supplier solution helps manufacturers synchronize multi-entity operational processes for faster time-to-market, on-time replenishment, reduced costs, and higher profitability performance.

MAPICS is a visionary, global software company focused exclusively on delivering collaborative business applications and expert consulting services that help manufacturers become world class.

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